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USSR

KOCHETKOV, N. K., et al., Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 2071-2076

of α-glucose-1 phosphate and disodium salt of D-glucose-6 phosphate, respectively. The neutral salts included desoxy- and desoxyketo compounds. Further studies of radiolysis products and related regularities will provide a clearer pattern of radiative dephosphorylation in terms of biological activity.

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UDC 541.15

USSR

KOCHETKOV, N. K., Corresponding Member Academy of Sciences USSR; KUDRYASHOV, L. I., and SENCHENKOVA, T. M., Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy of Sciences USSR, Moscow

"Racemization of alpha-Amino Acids under the Action of Gamma-Radiation"

Moscow, Doklady Akademii Nauk SSSR, Vol 195, No 2, 1970, pp 410-412

Abstract: The racemization in frozen 2-3 X 10^{-3}M aqueous solutions at minus 78° of L- and D-glutamic acids under the effect of gamma-irradiation was studied. The solutions were irradiated in sealed glass tubes under N_2 with doses of 0.3 - 1.5 X 10^{22} eV/g at dosage rates of 0.6-2 X 10^{16} eV/g.sec. On irradiation of L-glutamic acid, a glutamic acid fraction was isolated which had a specific rotation α_D^{20}=+8.5° and m. p. 190° vs. α_D^{20}=+13.6° and m. p. 236° for L-glutamic acid. The alphanaphthylhydantoin derivative of this fraction had m.p. 180-186° vs. m. p. 225° for the corresponding derivative of L-glutamic acid. Conclusive evidence indicating inversion of the configuration of D-glutamic acid as a result of irradiation, was also obtained; the specific rotation was lowered and a fraction was isolated by preparative separation on paper and elution that was shown to be L-glutamic

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USSR

KOCHETKOV, N. K., et al, Doklady Akademii Nauk SSSR, Vol 195, No 2, 1970, pp 410-412

acid by applying L-glutamic acid dehydrogenase from bull liver. The extent of racemization could not be estimated from the quantitative standpoint at this stage.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--FORMATION OF DEOXY SUGARS DURING THE IRRADIATION OF AQUEOUS SOLUTIONS OF CARBOHYDRATES -U-

AUTHOR-(04)-KOCHETKOV, N.K., KUDRYASHOV, L.I., YAROVAYA, S.M., VOZNESENSKAYA, S.V.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (1), 201-2

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SACCHARIDE, AQUEOUS SOLUTION, RADIOLYSIS, ATMOSPHERE COMPOSITION, OXYGEN, NITROGEN, NITROGEN OXIDE, CHEMICAL REACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/0434 STEP NO--UR/0062/70/000/001/0201/0202

CIRC ACCESSION NO--AP0117670

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0117670

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE YIELDS OF ALTERED ALPHA METHYL D,GALACTOSIDE, GALACTOSE, INOSITOL, LACTOSE, STARCH AND BLOOD GROUP SUBSTANCE WERE TABULATED FOR IRRADN. OF THESE IN SOLN. IN AN ATM. CONTG. O SUB2, N SUB2, OR N SUB2 O AT PH 7 AT DOSES OF (1-9) TIMES 10 PRIME19 EV-ML IN TERMS OF RESULTING DEOXYSUGARS, AS WELL AS DEOXYKETO SUGARS. THE RESULTS INDICATED THAT FORMATION OF DEOXY DERIVS. INVOLVES REACTION OF HYDRATED ELECTRONS AND O SUB2 PRIME NEGATIVE IONS, WHILE DEOXYKETO SUGARS ARE FORMED BY THE ACTION OF HO. RADICAL. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 040 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--FORMATION AND TRANSFORMATION OF RADICALS IN MYOINOSITOL UNDER THE INFLUENCE OF GAMMA RADIATION -U-

AUTHOR-(05)-NIKITIN, I.V., SHARPATYI, V.A., KUDRYASHOV, L.I., KOCHETKOV, N.K., EMANUEL, N.M.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(3), 635-8

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--FREE RADICAL, CYCLOHEXANE, HYDROXYL RADICAL, EPR SPECTRUM, GAMMA RADIATION, RADIATION EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/2024 STEP NO--UR/0020/70/190/003/0635/0638

CIRC ACCESSION NO--AT0112979

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2/2 040 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AT0112979

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RADICALS FORMED BY EXPOSURE OF MYO INOSITOL TO GAMMA RADIATION WERE CHARACTERIZED BY THEIR EPR SPECTRA AND THE SPECTRAL DATA WERE REPORTED IN DETAIL. THE RADICALS WERE PRODUCED AT 77DEGREESK IN DRY AND HYDRATED MODES OF INOSITOL. THE EXISTENCE OF THE STABILIZED ELECTRON WAS EVIDENT FROM DEVELOPMENT OF COLOR IN THE SPECIMENS CONTG. H SUB2 O AND FROM THE FORM OF THE EPR SPECTRA. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 547.455

KUDRYASHOV, L. I., LIVERTOVSKAYA, T. YA., VOZNESENSKAYA, S. V., KOVALEV, YU. I., SHARPATYY, V. A., and KOCHETKOV, N. K.

"Radiation Chemistry of Carbohydrates. XII. Effect of Structural Factors on Course of Radiolysis Processes of Aqueous Solutions of Methylglycosides"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 5, May 70, pp 1133-1137

Abstract: The authors studied regularities reflecting the relationship between the structure of the glycoside molecule and processes occurring during and after irradiation of aqueous solutions. The objects of study chosen were α-methyl-D-glucopyranoside, β-methyl-L-arabinopyranoside and α-methyl-D-galactopyranoside. The radiation sources used were a Co-60 device and an electron accelerator for frozen solutions. The periodate oxidation method was used to determine the glycoside concentrations of the irradiated solutions. It was found that the stereochemistry of methylglycosides has a significant

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KUDRYASHOV, L. I., et al., Zhurnal Obshchey Khimii, Vol 40, No 5, May 70, pp 1133-1137

effect on their radiation resistance. There is practically no formation of free monosaccharides in the radiolysis of dilute aqueous solutions. The principal process in the radiolysis of α-methyl-D-galactopyranoside and β-methyl-L-arabinopyranoside is the formation of deoxy sugars. According to EPR measurements, the composition and ratio of radiolysis products depend on the structure of the initial molecules and the reactivity of the intermediate particles that form.

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AT0003656 CHEMICAL ABST. 12/68

107545z Epimerization of monosaccharides under the influence of γ-radiation. Effect of the aggregate state of water on the mechanism of carbohydrate radiolysis. Kochetkov, N. K.; Kuzin, A. M.; Chizhov, O. S.; Chlenov, M. A.; Livertovskaya, T. Ya. Inst. Org. Khim. im. Zelinskogo, Moscow, USSR). *Dokl. Akad. Nauk SSSR* 1969, 187(2), 332-4[Chem] (Russ). γ-Irradn. of D-pentoses in aq. soln. in N atm. at −78°, using frozen solns. of ribose, arabinose, xylose, and lyxose, gave isomeric pentoses. Ribose gave mainly arabinose, xylose, and lyxose; arabinose and xylose gave only lyxose, while lyxose gave arabinose. Thus ≥1 asym. center undergoes a configurational change; a frozen soln. of ribose gives D-arabinose and L-lyxose; *G*(-ribose) was 0.15 and *G*(arabinose) was 0.01. Assuming an equal chance of formation of xylose and lyxose, some 20% of original ribose is converted by reactions of epimerization of HO groups; this is one of the main radiolytic processes. Irradn. of frozen solns. of ribose at 0° in a N atm. gave the same sugars as formed at −78° and the main detg. factor was the immobility of solvates of the radicals formed in the sugar radiolysis.

G. M. Kosolapoff

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UDC: 53.08+535.853

USSR

BAGLAY, R. D., ISKOL'DSKIY, A. M., KUDRYASHOV, M. I., and NESTERIKHIN, Yu. Ye.

"Electron-Optical Recorder 'Spectrum' as an Element in Automated Spectrum Investigation Systems"

Novosibirsk, Avtometriya, No 6, 1971, pp 24-41

Abstract: The Soviet spectral recording device "Spektr" (Spectrum) performs rapid conversion of unidimensional spatial distributions of electric signals and records them, by means of an oscilloscope, on photographic film. The recording system in the device is a double electronic-optical converter with electrostatic focusing and electron-beam deflection, given the designation LI-602. The purpose of this article is to consider the system errors and noise in the LI-602, describe the structure of the mechanical and electronic blocks in it, set up its mathematical model as a passive filter, present the results of typical experiments performed with data processing equipment, and propose several methods for eliminating systematic and random errors. A photograph of the device is reproduced together with some samples of the oscillographic output. Credit for assisting in the work is given to L. P. Baykov and V. D. Prilepskikh

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USSR UDC 539.373

KUDRYASHOV, N. N., and RYCHKOV, B. A.

"Investigation of the Deformation of an Aluminum Alloy by Complex Loading"

Frunze, Deformatsiya Neuprugogo Tela, 1970, pp 68—80

Abstract : Results are reported of the experimental investigation of deformations of thin-walled tubular specimens of the aluminum alloy AK-6, preliminarily subjected to thermal treatment. Data of two groups of carried out experiments are presented separately. The first group includes uniaxial stretching, pure torsion, and the determination of the Bauschinger effect by torsion of specimens of the investigated alloy. The second group includes a series of programs of complex loading by stretching combined with twisting. The experimental stress-strain dependences by complex loading are compared, on the one hand with flow and deformation theories, on the other hand with relations derived on the basis of the model of a linearly microtropically strengthening medium and the Il'yushin isotropy postulate. Two trajectory types of complex loading,

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KUDRYASHOV, N. N. and RYCHKOV, B. A., Deformatsiya Neuprugogo Tela, 1977, pp 68-80

the monotonous and the non-monotonous, are separating out within the limits of the mentioned model. By monotonous loading, the stress-strain characteristic is equivalent to correlations of the deformation theory. By comparison of these correlations with experimental data, the practical limits of the deformation theory applicability are determined. In contrast to the deformation and flo theories, a satisfactory description of experimental data was obtained by non-monotonous loading. Six illustr., one table, seven biblio. refs.

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KUDRYASHOV, O. N., Candidate of Medical Sciences, Col Med Serv, and SMIRNOV, A., correspondent of Krasnaya Zvezda

"From All Diseases"

Moscow, Krasnaya Zvezda, 20 Mar 70, p 4

Abstract: Although systematic exercise is not a panacea, it is an important means of preventing many diseases, especially now that mechanization and automation are reducing the need for physical labor. People with atherosclerosis and high blood pressure who participate in an exercise program on the advice of their physician can improve their general health, as well as the above conditions. People who exercise regularly have more resistance to colds and upper respiratory catarrhs than those who don't. Systematic exercise improves the activity of the cardiovascular and respiratory systems and improves metabolism, thus enabling the body to quickly adapt to changes in the weather and other environmental conditions. Although exercise is not a specific means of preventing viral influenza, people who are more resistant to colds, that is, who are physically conditioned are less likely to contract it.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR UDC 621.378.325

KUDRYASHOV, V.A., MATVEYEV, I.N., PSHENICHNIKOV, S.M.

"Effect Of Predetector Conversion Of Carrier Frequency On The Sensitivity Of Infrared Band Receivers"

Kvantovaya elektronika, Moscow, No 5, May 71, pp 140-142

Abstract: The statistical characteristics are considered of an optical receiver with a parametric carrier-frequency converter. It is shown that the noise index of such a receiver can be minimized. Formulas and the results of computation of the noise of concrete variants of infrared-band receivers are presented. Curves are shown of the dependence of the noise index of a receiver with a parametric frequency converter on the pump power in the case of conversion of radiation from the near-infrared region in a KDP crystal 1 cm long. Received by editors, 22 Apr 71. 1 fig. 3 ref.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 539.375

KUDRYASHOV, V. G. and SMOLENTSEV, V. I.

"A New Method for Determining the Deformation Viscosity K_{1c}"

Moscow, Konstruktivn. prochnost' staley i splavov i metody yeye otsenki (The Structural Strength of Steels and Alloys and Methods for Their Evaluation, Collection of Works), 1972, pp 9-16 (from Referativnyy Zhurnal -- Mekhanika, No 4, 1973, Abstract No 4V730 by Ye. M. Morozov)

Translation: An experimental method of multiple determination of the material characteristic K_{1c} on the same sample is proposed. A sample with a crack is loaded to the state of the first crack propagation, after which the sample is unloaded and then loaded again to the point of crack propagation. Repeating this process several times and determining K_{1c} each time makes it possible to diminish the error of the test and to expand its experimental possibilities. With the aid of this method the influence of the amplitude of loading on K_{1c} during the growth of the original crack, the rate of loading, the sequence of heat-treatment and start of the original crack, the length of the original crack and the medium, temperature, thickness and geometry of the sample was investigated. (16 bibliographic entries)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC: 669.017:539.42

IVANOVA, V. S., KUDRYASHOV, V. G., SHTOVBA, Yu. K. KOPELIOVICH, B. A., Moscow

"Fractographic Study of the Rupture Toughness of Aluminum and Titanium Alloys"

Kiev, Problemy Prochnosti, No 11, Nov 72, pp 25-30.

Abstract: An electron microscope study of the surface of a crack is performed after cyclical deformations of various Al alloys and Ti alloys under pure bending with constant and gradually increasing stress, pure circular bending, repeated extension and cantilever circular bending. It is shown that the dimensions of the pits on the crack surface near hard second-phase particles correlate with the value of H_{T_s} (change in heat content of base of alloy with changing temperature from room temperature to the melting point). It is also established that the rupture toughness determined by the method of Ivanova and Kudryashov, under conditions of cyclical loading at the critical fatigue stress, is near the rupture toughness produced by the method of Irwin.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC 669.14:539

USSR

IVANOVA, V. S., KUDRYASHOV, V. G., DERYAGIN, G. A., SHTOVBA, YU. K.,
Institute of Metallurgy, Academy of Sciences USSR, Moscow

"Comparison of the Breakdown Viscosity K_{1c} of Aluminum (AK4-1T1, V95T1, D16T) and Titanium (VT8, VT9) Alloys Under Static and Cyclic Loads"

Kiev, Problemy prochnosti, No. 5, May 72, pp 29-35

Abstract: Aluminum and titanium alloys were studied to determine the breakdown viscosity of structural materials both under static (K^{c}_{1c}) and under cyclic (K^{c}_{1c}) loading and also to show the optimal conditions for fatigue tests when $K^{c}_{1c} = K^{c}_{1c}$. It is noted that the problem of brittle fracture of materials is now receiving much attention and that a new breakdown characteristic K_{1c}, the breakdown viscosity of the material under plane deformation conditions, which characterizes the residual strength of material in the presence of cracks, has been introduced into calculations in connection with large-scale metal structures. It is difficult to determine the breakdown viscosity K_{1c} of materials of medium strength, such as

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IVANOVA, V. S., et al, Problemy prochnosti, No. 5, May 72, pp 29-35

structural aluminum alloys, according to linear breakdown mechanics; this requires tests of samples of extremely large dimensions and hence it is important to study the possibility of determining $K_{1\sigma}$ on the basis of fatigue tests of samples by a method proposed previously by Ivanova and Kudryashov. This avoids many difficulties associated with tests under static loading, such as the application of sharp cuts, the growth of fatigue cracks, and assuring conditions for plane deformation. Pressed profiles of cross section 60 × 80 and 65 × 200 mm^2 and bars of diameter 18 mm of AK4-1T1 alloy, pressed plates of cross section 35 × 250 mm^2 of V95T1 alloy and rods of diameter 18 and 60 mm of V95T1 alloy, pressed plates of cross section 42 × 250 mm^2, a panel of thickness 36 mm and rods of cross section 50 × 60 mm^2 and of diameter 18 mm of D16T alloy, pressed rods of diameter 18 mm of D1T, AVT1 and AMg6 alloys, pressed profiles of titanium alloys VT8 and VT9 and rods of diameter 35 mm of VT9 alloy in the annealed state were investigated. It was found that materials can be evaluated from the aspect of breakdown viscosity on the basis of fatigue tests and that the form of the load, the cycle and the load spectrum do not play a considerable role. The only condition for the best convergence of estimates of $K^{d}_{1\sigma}$ and $K^{c}_{1\sigma}$ is that the stress correspond to the critical fatigue stress. Analysis of test data on fatigue under bending and stretching of cylindrical samples of the aluminum and titanium alloys showed that the breakdown viscosity $K^{d}_{1\sigma}$ under static loading is

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IVANOVA, V. S., et al, Problemy prochnosti, No. 5, May 72, pp 29-35

determined by the Irwin method and the breakdown viscosity K^{c}_{1c} under cyclic loading as determined by the Ivanova and Kudryashov method are close to one another at the critical fatigue stress. It was also shown that it is possible to determine K^{c}_{1c} at high temperatures on the basis of fatigue tests of samples using the relationships of linear mechanics considering the length of the fatigue crack.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR UDC 620.172:620.182

NESHPOR, G. S., MIKLYAYEV, P. G., and KUDRYASHOV, V. G.

"Application of Diagrams of Macroscopic Destruction in Evaluating the Quality of Materials"

Moscow, Zavodskaya Laboratoriya, Vol 38, No 7, 1972, pp 864-868

Abstract: Mechanical characteristics obtained in standard tensile tests of smooth samples and in blow-bending tests of notched and cracked samples were compared with kinetic characteristics determined under conditions of developing destruction. Investigations were carried out on sheets from AMg6 aluminum alloy (5.8% Mg; 0.6% Mn; 0.1% Cu, 0.4% Fe, 0.3% Si, 0.15% Zn, base Al), 2 mm thick, annealed at 320°C for 1 hr, with 30 and 80% of cold working. The results showed that in evaluating the quality of materials and in choosing optimum conditions for working them it is indispensable to use the diagrams of macroscopic destruction alongside the standard mechanical characteristics. Four figures, 1 table, 7 references.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 539.4:669.017

BRUN, M. YA., KUDRYASHOV, V. G., and BYKOVA, L. A., Moscow

"Effect of Structure on the Tendency of VT9 Titanium Alloy Toward Brittle Fracture"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 4, Jul/Aug 72, pp 74-79

Abstract: Results are presented from an investigation of the effect of the α and β structure of VT9 titanium alloy on a series of criteria characterizing the strength by the onset and the propagation of fractures at room temperature. The plastic and brittle yield points were determined during the application of a double shock load and during the static deflection of the samples by recording the dynamic deformation. The parameters measured included actual tensile strength (S_k), temporary resistance ($\sigma_в$) and resistance to small plastic deformation ($\sigma_{0.001}$, $\sigma_{0.01}$, $\sigma_{0.1}$), modulus of deformational hardening ($D = d\sigma/d\delta$), comparative extension (δ), comparative cross-sectional constriction (ψ), and uniform and localized constriction (ψ_u and ψ_1). Significant differences were observed between fine-grained and coarse-grained samples.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 539.4

KUDRYASHOV, V. G., PRONIN, A. T., and VOROB'YEV, N. A., All-Union Institute of Light Alloys

"Comparison of the Ductility of Rupture of Titanium Alloys"

Kiev, Problemy Prochnosti, No 2, Feb 74, pp 96-99

Abstract: The ductility of rupture of titanium alloys was determined on the basis of the results of fatigue testing of specimens. The essence of the method used is that a specimen (cylindrical or flat) is fatigue tested to rupture, then the rupture surface is used to determine the length (for the flat specimen) and the depth (for the cylindrical specimen) of the fatigue crack (size of a fatigue spot). Tests were performed at room temperature and elevated temperatures and load-bearing ability (residual strength when cracks are present) was determined. The dimensions of permissible defects (cracks) are calculated for working stresses amounting to 50-100% of the yield point of the material.

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USSR UDC 620.178.3-41

NESHPOR, G. S., NIKOLAYEV, P. G. and KUDRYASHOV, V. G.

"Effect of the Sequence of Producing Fatigue Cracks and Heat Treating on the Failure Kinetics of Sheet Material Specimens"

Moscow, Zavodskaya laboratoriya, Vol 38, No 4, 1972, pp 479-482

Abstract: It is shown that the procedural sequence of producing a fatigue crack and heat treating centrally notched sheet material specimens cut along the direction of rolling from VT15 β-titanium alloy sheets affects the property of resistance to growth of the initial crack in subsequent tensile tests, the ultimate breaking stress, and the critical crack length; the values of the stress intensity factor (failure ductility) are practically unaffected. The heat treatment consisted of hardening from 800°C for 10 min and aging at 480°C for 25 hrs. The central notch was 10 mm long and 0.16 mm wide. The fatigue stresses, under cyclic conditions, were applied at 800 cycle/min at a minimum of 2 kg/mm^2 and a maximum of 15 kg/mm^2.
(3 illustrations, 6 biblio. references)

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USSR

UDC 669.721.5'884:539.4:539.56

GUR'YEV, I. I., YELKIN, F. M., KUDRYASHOV, V. G.

"Dependence of the Mechanical Properties of Magnesium and Binary Mg-Li Alloys on Temperature"

V sb. Struktura i svoystva legk. splavov (Structure and Properties of Light Alloys -- collection of works), Moscow, Nauka Press, 1971, pp 123-127 (from Khh-Metallurgiya, No 4, Apr 72, Abstract No 4I654)

Translation: A study was made of the effect of alloying Li in the amount of 4, 8, and 14% on the mechanical properties of Mg at test temperatures from -196 to +300°. The increase in Li content in the alloys promotes an increase in plasticity by 5-10 times. The strength decreases by 2-3 times. The increase in the amount of beta-phase with body-centered cubic lattice Li in Mg-Li alloys increases the temperature sensitivity of their strength characteristics. For binary Mg-Li alloys, in contrast to pure Mg, the presence of a plasticity trough at defined test temperatures is characteristic. This indicates the inclination of these alloys toward embrittlement, caused probably by the presence of Na in the alloys. Alloying Mg with lithium essentially reduces the sensitivity of Mg-Li alloys to notching. Three illustrations and a 7-entry bibliography.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 669.017:539.56:548.735.6:548.4

SMOLENTSEV, V. I., and KUDRYASHOV, V. G., VILS (All-Union Institute of Light Alloys)

"On the Breaking Strength [K_{1c}] of High-Strength Aluminum and Titanium Alloys at Low Temperatures"

Kiyev, Problemy Prochnosti, No. 9, Sep 71, pp 63-66

Abstract : The variation of the breaking strength K_{1c}, characterizing the critical stress intensity ahead of a crack growing under plane deformation conditions, of aluminum alloys V95, V96, V96ts, and VAD-23 and the titanium alloy VT-15 was experimentally investigated on flat notched specimens of different thicknesses by decreasing test temperatures. K_{1c}-values were determined from a given formula as function of the width and thickness of the specimen, the depth of the notch and the fatigue crack, and the load by beginning crack formation. The investigation results, discussed by reference to diagrams, show that the values of K_{1c} do not change by a temperature drop of down to -196 °C. Methods for determining K_{1c} are suggested. Four illustr., two tables, one formula, five biblio. refs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC [illegible]

NESHPOR, G. S., MIKLYAYEV, P. G., and KUDRYASHOV, V. G.

"Method of Evaluating the Kinetics of Fatigue Crack Growth in Sheet Specimens of Anisotropic Materials"

Moscow, Zavodskaya Laboratoriya, No 10, 1970, pp 1265-1266

Abstract: A study is made of the relationship between fatigue crack growth and variations in the coefficient of stress intensity in the area of cracks during a cycle in sheet specimens of the alloys D16-AT, 01911-T1, and V95-AT1 diametrically oriented to the direction of rolling. It is shown that anisotropy of failure parameters in cyclic loading can be evaluated by determining these parameters for one direction, after which values of these parameters can be calculated using the equation derived, for any other direction.

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1/2 016 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--ELASTIC AND INELASTIC SCATTERING OF PARTICLES AND THE MODEL OF AN EXCITED CORE IN THE A EQUALS 25-35 RANGE -U-

AUTHOR-(05)-ANTROPOV, A.YE., PLAVKO, A.V., ZARUBIN, P.P., KUDRYASHOV, V.I., ORLOV, B.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(1), 155-60

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--ELECTRON STRUCTURE, NUCLEAR MODEL, EXCITED NUCLEUS, ELASTIC SCATTERING, INELASTIC SCATTERING, SODIUM ISOTOPE, MAGNESIUM ISOTOPE, SULFUR ISOTOPE, CHLORINE ISOTOPE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0235 STEP NO--UR/0048/70/034/001/0153/0160

CIRC ACCESSION NO--AP0105311

UNCLASSIFIED

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2/2 016 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0105311

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DATA ARE ANALYZED ON THE ELASTIC AND INELASTIC SCATTERING OF PARTICLES WITH EXCITATION OF LOWER LEVELS OF PRIME23 NA, PRIME24 MG, PRIME25 MG, PRIME26 MG, PRIME33 S, PRIME34 S, AND PRIME35 CL. ALSO, DATA OF MEASUREMENTS PERFORMED WITH SIMILAR TO 6 MEV P ARE INCLUDED. IT IS STUDIED TO WHAT EXTENT THE EXCITED CORE MODE, THE MOST OFTEN USED MODEL, IS SUITABLE FOR THE DESCRIPTION OF THE NATURE OF LOW LEVELS OF ODD NUCLEI OCCURRING IN THE REGION OF A COMPLETE FILLING OF THE 1D-2S SHELL. AT THE CENTER OF THE SUBSHELL 1D SUBFIVEHALVES (PRIME23 NA, PRIME25 MG) WHERE THE DEFORMATION OF THE CORE OF ODD NUCLEI IS LARGE THE INTERRELATION OF N OR VACANCY WITH THE CORE IS NOT SO LARGE AS TO AFFECT THE CHARACTERISTIC FEATURES OF THE EXCITED CORE MODEL. IN ODD NUCLEI OCCURRING AT THE END OF THE SUBSHELL 1D SUBFIVEHALVES (PRIME27 AL) IN THE SUBSHELL 2S SUBONEHALF (PRIME29 SI, PRIME31 P), AND AT THE BEGINNING OF THE SUBSHELL 1D SUBTHREEHALVES (PRIME33 S, PRIME35 CL) THE INTERACTION OF THE PARTICLE OR VACANCY WITH THE CORE GOVERNS THE APPEARANCE OF THE CHARACTERISTIC FEATURES OF THE EXCITED CORE MODEL. IT OFFERS THE POSSIBILITY TO USE THE EXCITED CORE MODEL FOR THE INVESTIGATION OF THE STRUCTURE OF THE EXCITED STATES OF NUCLEI IN THIS REGION OF THE 1D-2S SHELL. FACILITY: LENINGRAD. GOS. UNIV., LENINGRAD, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC: 551.596+534-143

KUDRYASHOV, V. M.

"Peculiarities of Wave Models of a Sonic Field in the Shadow Zone"

Moscow, V sb. Tezisy dokl. 3-y Vses. shkoly--seminara po stat. gidroakustike, 1971 (Theses of Reports, Third All-Union School--Seminar on Statistical Hydroacoustics, 1971--collection of works) 1972, pp 69-76 (From RZh--Fizika, No 4, 1973, Abstract No 4Zh648)

Translation: The author considers the problem of the sonic field of a harmonic source placed in a flat-layered liquid medium filling a space $z \geqslant h + s(x,y)$ (where x,y,z are the Cartesian coordinates and $s(x,y)$ is a statistically uniform function of the coordinates). The problem is considered under the conditions of a so-called near-surface waveguide. The source of the sound is monochromatic. The coherent field is sought in the form of the superposition of normalized waves. In the medium of the type considered, the spectrum of the normalized waves forming a coherent field consists of weakly attenuating, normalized waves concentrated principally in the near-surface waveguide. The dispersion of the waves by the uneven boundary is an additional source of illumination for the shadow zone. The case in which the dispersion almost completely removes the energy of the random field component from the waveguide

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USSR

KUDRYASHOV, V. M., Tezisy dokl. 3-y Vses. shkoly--seminara po stat. gidroakustike, 1971 (from RZh--Fizika, No 4, 1973, Abstract No 4Zh648)

is considered. Formulas are given describing the space correlation function for the single-dispersion field of the first normalized wave in the coherent field. The case in which the radiator is placed in the waveguide while the observation point is outside it and the case in which both corresponding points are inside the waveguide are considered. The fact that the statistical average level of the intensity of the random part of the field may significantly exceed the intensity of the coherent component in the shadow zone does not contradict the applicability criterion of the given approximation, since this criterion requires smallness in the average flow of random field energy through the transverse section of the medium compared to the same energy flow in the coherent field. L. V. Tikhomirova

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC: 551.596:534.143

KUDRYASHOV, V. M.

"On Calculating Acoustic Fields in Media Which are Nonhomogeneous With Respect to Two Coordinates"

Novosibirsk, Mat. probl. geofiz.--sbornik (Mathematical Problems of Geophysics--collection of works), vyp. 3, 1972, pp 321-327 (from RZh-Fizika, No 5, May 73, abstract No 5Zh626 by the author)

Translation: The paper examines the acoustic field in a medium which is nonuniform along two coordinates under conditions leading to the formation of shadow zones due to horizontal refraction of waves. The integral expression for the field is calculated by the method of residues; as a result, the acoustic field in the shadow zone is represented as a superposition of normal waves. The characteristic numbers of these waves are broken down into two groups. The first group of characteristic numbers is related to refraction of waves in the vertical plane, while the second is associated with refraction in the horizontal plane. Because of the complex nature of the characteristic numbers in the second group, an additional attenuation of the acoustic field (as compared with the case of a horizontally homo-

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KUDRYASHOV, V. M., Mat. probl. geofiz., vyp. 3, 1972, pp 321-327

geneous medium) is observed in the shadow zone; this additional attenuation is of the diffraction type. It is shown by an example that horizontal nonhomogeneity of the medium may have an appreciable influence on decay of the field with distance. An expression is found for a locally space--averaged anomaly of sound propagation. This expression is compared with a known formula derived by L. M. Brekhovskikh for a medium which is homogeneous along the horizontal.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 615.214.32

BABICHEV, V. A., UTESHEV, B. S., KUDRYASHOV, V. M., BEREZINA, T. A., Department of Pharmacology, II Moscow Medicinal Institute imeni N. I. Pirogova

"Immunodepressive Action of Cytosine Arabinoside"

Moscow, Farmakologiya i Toksikologiya, Vol 36, No 4, Jul/Aug 73, pp 473-476

Abstract: The effect of the antimetabolite cytosine arabinoside (CA) on sheep erythrocyte stimulated primary immunological response in normal mice and in the system of syngenic transmission in lethally irradiated animals with a parallel study of the antibody producing cells and cell precursors was investigated. SVA mice (18-20 gm) were injected intravenously with 5% sheep erythrocytes ($5x10^8$ cells), sacrificed after 4 days, the spleens isolated and the primary antibody (AB) forming cells determined by the method of Jerne and Nordin. CA, upon injection (500 mgm/kg) 48 hours after immunization, produced a maximum immunodepressive effect (16 AB-producing cells per 10^6 nucleated spleen cells versus 203 AB-producing cells in the control -- no injection). CA injected 24 hours after or 24 hours before immunization, reduced AB-producing cells to 89 and 126 cells per 10^6 nucleated spleen cells. Injection of CA (100 mgm/kg) at 24, 48, and 72

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USSR

BABICHEV, V. A., et al., Farmakologiya i Toksikologiya, Vol 36, No 4, Jul/Aug 73, pp 473-476

hours after immunization prevented almost completely AB-producing cells (4 AB-producing cells per 10^6 spleen cells). Spleen cells from the rats injected at 24, 48, and 72 hours with CA were injected into recipient rats and the effect of CA on the population of precursor cells of the primary immunological response was studied. Recipients demonstrated 6 hemolytic foci (corresponding to 1 precursor vell) compared with controls which contained 20 hemolytic foci. The number of plaque-forming cells in experimental recipients in the whole spleen was about 128, those in the control about 516. It was concluded that experimental and control animals' proliferative possibilities of U-cells are realized in the organs of lethally irradiated recipients to the same degree. Whether CA elicits the lowering of proliferative possibilities of all nucleus containing cells or only that of precursor cells is the subject of further studies.

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USSR UDC 534.2

KUDRYASHOV, V. M.

"On the Correlation Characteristics of a Sonic Field in a Nonhomogeneous Medium"

Tr. k V Vses. simpoz. "Metody predstavleniya i apparaturn. analiz sluchaym. protsessov i poley", 1972, Sekts. 2 (Works of the V All-Union Symposium "Methods of Representation and Equipment Analysis of Random Processes and Fields", 1972, Section 2), Leningrad-Vil'nyus, 1972, pp 122-125 (from RZh-Fizika, No 10, Oct 72, Abstract No 10Zh534)

Translation: The three-dimensional correlation functions of a sonic field in a regularly nonhomogeneous liquid with a statistically irregular boundary is calculated. It is assumed that the refractive index of the medium has a minimum at a certain distance from the boundary and the irregularities are statistically homogeneous and normally distributed. The calculations were made for the case in which the emitter and receiver are located outside the waveguide layer and at distances from it considerably exceeding the length of the wave. In this case one can be limited to a calculation of the correlation functions for double scattering. An example is given showing that in the shadow zone of a coherent field the correlation radius of the scattered field can be large in comparison with the correlation radius of the boundary surfaces. Yu. K.

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UDC 621.385.632

USSR

GERASIMENKO, Yu. A., KALININ, Yu. A., KATS, A. M., KUDRYASHOV, V.P.

"Change Of Phase And Amplitude Of The Output Signal In A TWT During A Pulse"

Elektron. tekhniku. Nauchno-tekhn. sb. Elektron. SVCh (Electronics Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 6, pp 86-94 (from RZh--Elektroniku i yeye primeneniye, No 10, October 1970, Abstract No 10A158)

Translation: The mechanism is considered of changes during a pulse, of the phase and amplitude of the output signal of a TWT resulting from ionization of residual gases by an electron beam. It is shown that the magnitude of the changes depends on the pressure of the residual gases and parameters of the TWT. An approximate calculation is given for the changes of phase and amplitude of the output signal in a pulse. Experimental results are presented. Summary.

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UDC 577-391

USSR

RYAZANOV, V. M., SHIRYAYEV, V. G., PARKHOMENKO, I. M., and KUDRYASHOV, Yu. B., Biophysics Department, Moscow State University

"Role of Phospholipids in Radiation Lesions of Mammals Differing in Radiosensitivity"

Moscow, Vestnik Moskovskogo Universiteta, No 3, 1973, pp 36-41

Abstract: Lipid metabolism and antioxidant activity of phospholipids were studied in various organs of the highly radioresistant Mongolian gerbil Meriones unguiculatus ($LD_{50/30}$ 1180 rad) and much more radiosensitive guinea pig Cavia porcella ($LD_{50/30}$ 190 rad). Both groups of animals were exposed once to whole-body irradiation at 700 r. Irradiation caused a significant decrease in the phospholipid content of the brain, liver, and small intestine within 2 hours. The decrease persisted or intensified thereafter in the guinea pigs but gave way to an increase in the gerbils. Irradiation also altered the composition of the animals' total lipids, increasing the percentage of phospholipids in the gerbils but decreasing it markedly per unit of tissue weight in the guinea pigs. Antioxidant activity of the phospholipids decreased sharply in the guinea pigs but increased in the gerbils. The high degree of resistance to ionizing radiation exhibited by

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

RYAZANOV, V. M., et al., Vestnik Moskovskogo Universiteta, No 3, 1973, pp 36-41

gerbils is attributed to the increased phospholipid content of the liver after exposure and intensified antioxidant activity of the phospholipids. These reactions prevent "intestinal death," which results from the use of 400 to 500 rad in guinea pigs (compared to a dose of 1500 rad or more in gerbils).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR UDC 621.0.39.58+615.7

KUDRYASHOV, Yu. B., GONCHARENKO, Ye. N., DEYEV, L. I., GORSHAYA, T. G., and SAMOYLIKOVA, T. I., Moscow State University imeni M. V. Lomonosov

"Reduction of Endogenous Radiosensitizers, LTV [Lipid Toxic Substances], as One of the Mechanisms of the Radioprophylactic Effect"

Moscow, Doklady Academii Nauk SSSR, Vol 195, No 1, 1970, pp 206-208

Abstract: A study was made of the decrease in LTV activity in tissues of white rats after introduction of highly effective radioprotectors. The same effect as is observed with hypoxic hypoxia was found. The drop in LTV activity was accompanied by a similar decrease in the tissues or by an increased inhibitor content. It was determined that the shifts observed in the period of maximum radioresistance (15 minutes) are attenuated and expire after 4-6 hours. One of the possible mechanisms for the effect produced by radioprotectors may be the reduction in the content of biogenic radiosenitizers during the period of enhanced radioresistance associated with hypoxia or with the injection of radioprotectors (such as AET, MEA).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 577.391

GONCHARENKO, YE. N., KUDRYASHOV, YU. B., and BRIYEDIS, I., Moscow State University imeni M. V. Lomonosov

"The Role of Endogenous Histamine in the Radioprotective Action of Radioprotectors"

Moscow, Doklady Akademii Nauk, USSR, Vol 191, No 4, 1970, pp 948-950

Translation: It was proposed earlier (1, 2) that one possible mechanism of the action of radioprotectors is based on their ability to lower the content of toxic lipids in the cells, and to liberate "endogenous radioprotectors".

Experimental data are reported showing that aminothiols are capable of increasing the levels of one such "endogenous radioprotector" -- serotonin(2). This paper describes an investigation of changes in the levels of another biologically active compound -- histamine -- under the influence of administered radioprotectors. White male rats were used in the experiment (body weight 120-150 g). The animals were injected intraperitoneally with aqueous solutions of the radioprotectors, and after 10-20 min the content of free and total histamine in tissues was determined(3).

The so-called r.d.i. at $LD_{50/30}$ (i.e., factor of decreased irradiation dose resulting in 50% animal deaths in 30 days) was taken as the criterion of the protective action of the compounds studied. The radioprotective compounds (AET --

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

GONCHARENKO, YE. N., et al., Doklady Akademii Nauk, USSR, Vol 191, No 4, 1970, pp 948-950

aminoethyl isothiuronium, MEA -- mercaptoethylamine, cystamine, cysteine, serotonin, and snake venom) and control materials (serine and 0.85% NaCl solution) were injected intraperitoneally 10-15 min prior to a single total irradiation of animals (dose range -- 400-1400 rads) on a GUBE-800 apparatus (dose rate was 50 rad/min). Another criterion of the effectiveness of radioprotectors was Δ Eh -- lowering of the oxidation-reduction potential level, registered on a platinum needle electrode inserted subcutaneously into the rats [4,5].

Table 1 shows that injecting the rats with highly effective radioprotectors (f.d.d. 1.5; Δ Eh = -150 mv and larger drop) results in considerable increase of histamine in tissues. This is especially noticeable in the case of "total" histamine. The tissues containing higher amounts of histamine in control groups (skin, stomach) are capable of accumulating large quantities of histamine (in absolute figures).

Snake venom has little protective effect (f.d.d. 1.2). Rats injected with snake venom showed increased histamine levels in skin and stomach, and significant decrease in liver and kidneys. It is interesting that serine (control), which is not radioprotective, but whose structure is similar to the active aminothiols studied, caused no significant change in the content of free and total histamine.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

GONCHARENKO, YE. N., et al., Doklady Akademii N , USSR, Vol 191, No 4, 1970, pp 948-950

Increase in the free and total histamine in the tissues indicates liberation of endogenous histamine under the influence of radioprophylactic compounds, and also synthesis of histamine.

Thus the data obtained support the proposal that "endogenous radioprotectors" may be accumulated in the organism under the influence of radioprotectors which may be capable of increasing radioresistance of the animals (12).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC: 577.391

USSR

MEDNYASHOV, YU.S.

"Express Methods of Initial Selection and Study of Chemical Means of Protection from Radiation Injury"

Moscow, Vestnik Moskovskogo Universiteta, Biologia, Pochvovedeniye, No 2, Mar/Apr 70, pp 51-70

Abstract: The rather extensive literature on the subject of chemical means of protection from radiation injuries is reviewed, and a series of original experiments on the subject are presented, testing a number of chemicals for their probable prophylactic properties and mode of action. It was found that the degree of decrease in the level of the redox potential in animal tissues after introduction of a chemical agent is correlated with the degree of radio protective action. Decrease in cellular level of lipid oxidation products prior to irradiation increases the resistance of the cell to ionizing radiation. Mercamine is the most effective and rapidly acting prophylactic agent; followed by those chemicals which liberate in the body mercamine.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 049 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ROLE OF ENDOGENOUS HISTAMINE IN THE RADIATION SHIELDING ACTION OF RADIOPROTECTORS -U-

AUTHOR-(03)-GONCHARENKO, YE.N., KUDRYASHOV, YU.B., BRISOIS, T.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK. SSSR 1970, 191(4), 948-50

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--HISTAMINE, RADIATION BIOLOGIC EFFECT, RAT, RADIATION SHIELDING, VENOM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0773 STEP NO--UR/0020/70/191/004/0948/0950

CIRC ACCESSION NO--AT0131367

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 049 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0131367

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AET (AMINOETHYLISOTHIURONIUM), CYSTEAMINE, CYSTAMINE, CYSTEINE, SEROTONIN, AND TO A LESSER ESTENT, VIPERA LEBETINE VENOM, ADMINISTERED I.P. TO RATS 10-15 MIN BEFORE WHOLE BODY IRRADN. (400-1400 RAD) EXERTED RADIOPROTECTOR ACTION AND INCREASED THE LEVEL OF HISTAMINE IN THE TISSUES, ESP. IN THE SKIN AND STOMACH. THIS SUGGESTS A POSSIBLE ROLE OF ENDOGENOUS HISTAMINE IN INCREASING RADIORESISTANCE IN ANIMALS. FACILITY: MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 021 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--ROLE OF BIOLOGICALLY ACTIVE SUBSTANCES, RADIOTOXINS, IN RADIATION INJURY -U-

AUTHOR-(02)-KUDRYASHOV, YU.B., GONCHARENKO, YE.N.

COUNTRY OF INFO--USSR

SOURCE--RADIOBIOLOGIYA 1970, 10(2), 212-29

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TOXIN, RADIATION SICKNESS, LIPID, PROTEIN, QUINONE, FATTY ACID, HISTAMINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605004/C04 STEP NO--UR/0205/70/010/002/0212/0229

CIRC ACCESSION NO--AP0130818

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 021 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0139616

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RECENT STUDIES ON THE FORMATION AND THE BIOL. ROLE OF RADIOTOXINS ARE DISCUSSED. PRIMARY RADIOTOXINS (LIPID AND QUINONE LIKE) AND SECONDARY RADIOTOXINS (BREAKDOWN PRODUCTS OF PROTEINS, LIKE HISTAMINE AND CHOLINE) AS WELL AS FORMATION OF RADIOTOXIN COMPLEXES CAUSING THE "RADIOTOXIC EFFECT" AND THE ROLE OF EACH INDIVIDUAL TOXIN ARE CONSIDERED. STUDIES ON THE ROLE OF OXIDN. PRODUCTS OF UNSATD. FATTY ACIDS ARE DISCUSSED. FACILITY: BIOL.-PCCHV. FAK., MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 031 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--PRIMARY SELECTION AND STUDY OF THE PROPERTIES OF CHEMICAL AGENTS FOR PROTECTION FROM RADIATION INJURY -U-

AUTHOR--KUDRYASHOV, YU.B.

K

COUNTRY OF INFO--USSR

SOURCE--VESTN. MOSK. UNIV., BIOL. POCHVOVED. 1970, 25(2), 51-70

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RADIOPROTECTOR, ERYTHROCYTE, LIPID, TOXICITY, POLYSACCHARIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
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CIRC ACCESSION NO--AP0140000
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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 031 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0140000

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RAPID METHODS ARE PRESENTED FOR A PRIMARY SELECTION AND STUDY OF RADIOPROTECTORS, AND APPLIED IN STUDYING THE PROTECTIVE EFFECTS ON ERYTHROCYTES OF AMINOALKYL THIOLS, AMINOALKYL DISULFIDES, AMINOALKYLISOTHIURONIUM COMPDS., BUNTE SALTS, AND THIAZOLIDINES. A RADIOMIMETIC EFFECT OF LIPOIDAL TOXIC COMPDS. PRODUCED DURING IRRADN. IS SIGNIFICANTLY REDUCED WHEN PHOSPHOLIPIDS FROM ANIMAL TISSUES ARE ADDED. POLYSACCHARIDES EXCEPT HYALURONIC ACID EXHIBITED A SIMILAR ACTION IN THE ERYTHROCYTE RADIOMIMETIC MODEL TO THAT OF PHOSPHOLIPIDS.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC 621.355.8.035.2

USSR

KUDRYASHOVA, G. M., MOKHNATIKIN, V. M., LOMOV, M. I., and KOLOSOV, A. S.

"Concerning the Problem of the Structure of a Two-Phase Flow in a Densely Packed Energizer Stack"

V sb. Issled. v obl. khim. istochnikov toka (Research in the Field of Chemical Sources of Current -- collection of works), vyp 2, Saratov, Saratov. un-t, 1971, pp 58-61 (from RZh-Khimiya, No 18, Sep 72, Abstract No 18L179)

Translation: Analysis of the distribution of the gas-liquid mixture between close-stacked plates of alkaline energizers shows that when materials of the nylon type are used as the separation between electrodes, continuous liquid and gas phases exist simultaneously in the interelectrode gap.
V. S. Levinson.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 008 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--EFFECT OF THE COMPOSITION OF THE MEDIUM ON THE FORMATION OF ALDEHYDES DURING SECONDARY FERMENTATION -U-

AUTHOR-(02)-ORESHKINA, A.YE., KUDRYASHOVA, N.A.

COUNTRY OF INFO--USSR

SOURCE--VINODEL. VINOGRAD. SSSR 1970, 30(1), 11-15

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FERMENTATION, SULFUR OXIDE, SACCHARIDE, ALDEHYDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1996/0660 STEP NO--UR/0505/70/030/001/0011/0015

CIRC ACCESSION NO--AP0117885

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 008 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0117835

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDN. OF SO SUB2 BEFORE THE 2ND FERMENTATION INCREASED FORMATION OF TOTAL ALDEHYDES, BUT DID NOT AFFECT FORMATION OF FREE ALDEHYDES. NO CORRELATION BETWEEN SUGAR CONTENT IN THE MEDIUM AND FORMATION OF ALDEHYDES WAS OBSD. CHANGES IN TOTAL AND FERMENTED SUGAR AFFECTED FORMATION OF ALDEHYDES. FORMATION OF ALDEHYDES INCREASED WITH DECREASE OF FERMENTED SUGAR. FACILITY: VSES. ZAOCH. INST. PISHCH. PROM., MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 616.981.714-022.39:595.425(575.3)

KUDRYASHOVA, N. I., Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Medical Sciences USSR, Moscow

"Trombiculid Mites and Scrub Typhus Foci in Tadzhikistan"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, No 3, 1972, pp 287-290

Abstract: Though scrub typhus foci are fairly common in West Pakistan, the region that is geographically closest to Tadzhikistan, they apparently do not exist in this Soviet republic. The adjoining Himalayas of West Pakistan belong to tropical and subtropical belts with considerable moisture and they are situated among savannas. Tadzhikistan, on the other hand, is a mountainous country with a desert, markedly continental type of climate, one not favorable to the causative agent of scrub typhus. Forty-seven species of trombiculid mites are found in Tadzhikistan and 48 species in West Pakistan, but only 6 are common to both regions. Leptotrombidium diliensis, the main vector of R. tsutsugamushi, is found only in the foothills of the Western Himalayas at about 300 m). Thus, the geographic, parasitological, and some microbiological differences tend to rule out the likelihood of scrub typhus foci existing in mountainous Tadzhikistan (plains occupy only about 10% of the area).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 911.3.616.61-002.151(47)

POVALISHINA, T. P., KUDRYSHOVA, N. I., and VISHNYAKOV, S. V.

"The Fauna of Trombiculid Mites and Their Hosts in a Number of Foci of Hemorrhagic Fever with Renal Syndrome in European USSR"

V sb. Vtoroye Acarologicheskoye soveshchaniye. Ch. 2. Tezisy dokl. (Second Acarological Conference. Part 2. Theses of Reports -- collection of works) Kiev, "Nauk. dumka," 1970, pp 82-83 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.65)

[No abstract]

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC: 681.3.06:51

USSR

KUDRYASHOVA, O. N., SARKISYAN, N. A., TKACH, V. F.

"Organization of an Input-Output System With Inquiry and Response Stations and a VNIIEM-3 Computer for Real-Time Collection of Production Data"

V sb. Primeneniye vychisl. tekhn. v elektrotekhn. prom-sti (Use of Computer Technology in the Electrical Engineering Industry--collection of works), Moscow, 1971, pp 289-294 (from RZh-Kibernetika, No 11, Nov 71, Abstract No 11V844)

Translation: The authors discuss an input-output system with inquiry--response stations. The system is a software element in a system for collection of production data in a slab mill. The described system organizes bilateral communications between the VNIIEM-3 control computer and telegraph equipment installed in the production line, and implements series-parallel reception of messages and output of information in the VNIIEM-3 computer system in amounts up to eight pieces, as well as quasisimultaneous operation of the computer and an external device. V. Mikheyev.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC 621.375.826

USSR

KUDRYASHOV, V. A., MATVEYEV, I. N., and PSHENICHNIKOV, S. M.

"Statistical Characteristics of Laser Receivers With Frequency Conversion Under Noise Conditions"

V sb. Nelineyn. protsessy v optike (Nonlinear Processes in Optics -- collection of works), Vyp.2, Novosibirsk, 1972, pp 354-359 (from RZh-Radiotekhnika, No 11, Nov 72, Abstract No 11 D143)

Translation: None.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

Acc. Nr: AP0034227

Abstracting Service: CHEMICAL ABST. 4-70

Ref. Code: UR 0028

K

71246g Complexing in cobalt(II) chloride-rubidium chloride and nickel(II) chloride-rubidium chloride systems. Efimov, A. I.; Kudryashov, Z. P. (USSR). *Zh. Neorg. Khim.* 1970, 15(1), [illegible] (Russ). NiCl$_2$–RbCl system forms a compd. that melts congruently at 712°, $RbNiCl_3$, and a eutectic that melts at 505° and contains 75 mole % PbCl. The ΔH of soly. in water was detd. calorimetrically and ΔH°_{298} of formation of complexes were calcd. The given data are (compd., ΔH of soly. in kcal/mole, ΔH°_{298} of formation in kcal/mole): $RbNiCl_3$, −10.11 ± 0.07, −5.8 ± 0.1; $RbCoCl_3$, −9.83 ± 0.19, −5.8 ± 0.2; Rb_2CoCl_4, −5.58 ± 0.19, −6.0 ± 0.2; Rb_3CoCl_5, −0.25 ± 0.12, −7.4 ± 0.1. HMJR

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REEL/FRAME 19710880

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

KUDRYAVITSKIY I.B.

AA0043328

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

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238669 CONTACTLESS RELAY for operation in dc circuits consists of two transistors in two adjacent arms of a bridge which has a source of supply applied to one diagonal and the load to the other diagonal. The collectors of the transistors, which are connected in a trigger circuit with two feedback resistors shunted by capacitors, lead to two thyristors which are the other two arms of the bridge.

8.1.68 as 1208059/18-24. I.B.KUDRYAVITSKII (17.7.69) Bul 10/10.3.69. Class 21g. 21a1. Int.Cl.H 01h.

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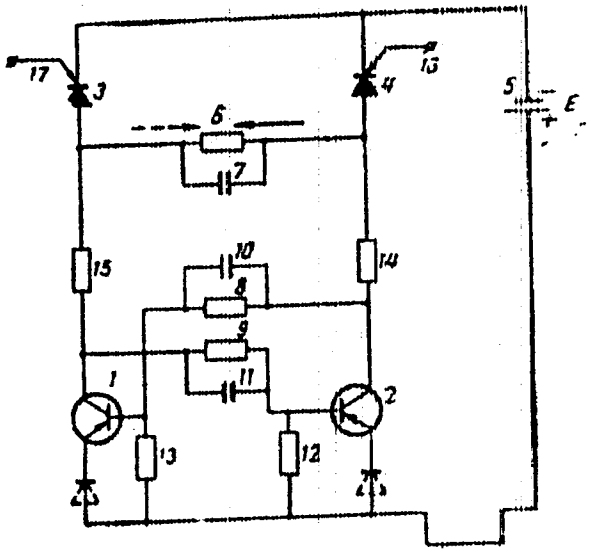
"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

AA0043328



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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UDC 621.396.67.001.5

USSR

GOLOVANOV, N. V., KUDRYAVITSKIY, L. S., ZVEREV, A. M.

"Device for Automatic Recording of the Directivity Characteristics of Antennas"

Obmen opytom v radiopromyshlennosti--V sb.(Exchange of Experience in the Radio Industry -- collection of works), vyp. 12, Moscow, 1970, pp 41-42 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4B97)

Translation: The operating principle and design of the basic elements of a device for automatic recording of the directional diagram and polarization characteristics of antennas are investigated.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 011 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--DIRECTION OF REDOX REACTIONS -U-

AUTHOR--KUDRYAVTSEV, A.A.

COUNTRY OF INFO--USSR

SOURCE--KHIM. SHK. 1970, 25(1), 85-90

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--REDOX REACTION, ELECTRON STRUCTURE, PHYSICAL CHEMISTRY PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3005/0032 STEP NO--UR/0509/70/025/001/0085/0090

CIRC ACCESSION NO--AP0132327
UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UNCLASSIFIED PROCESSING DATE--04DEC70

2/2 011

CIRC ACCESSION NO--AP0132327

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RELATION BETWEEN THE ELECTRONIC STRUCTURE AND PHYSICOCHEM. PROPERTIES OF THE ELEMENTS AND THE DIRECTION OF REDOX REACTIONS IS DISCUSSED.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 018 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--SUPERHEAT NECESSARY FOR BOILING ALKALI METALS -U-

AUTHOR-(03)-SUBBOTIN, V.I., SOROKIN, O.N., KUDRYAVTSEV, A.P.

COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. 1970, 28(2), 153-5

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--LIQUID METAL BOILING, SODIUM, POTASSIUM, CESIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3003/1363 STEP NO--UR/0089/70/028/002/0153/0155

CIRC ACCESSION NO--AP0130321

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

CIRC ACCESSION NO--AP0130321

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LITERATURE DATA ON THE SUPERHEATING DELTAT REQUIRED FOR BOILING ALKALI METALS VARY WITHIN WIDE LIMITS; EXPTL. DATA OF THE AUTHORS ALSO SHOW A WIDE SCATTER, I.E., THE DELTAT FOR NA, K, AND CS (AT SATN. TEMPS. OF 600-930, 450-800 AND 480-660DEGREES) ARE 40-200, 60-150 AND 70-120DEGREES, RESP.; DELTAT TENDS TO DECREASE WITH INCREASING SATN. TEMP. THE SCATTER OF EXPTL. DATA, AND THE DISCREPANCIES BETWEEN DATA OF VARIOUS AUTHORS, IS ATTRIBUTED TO DIFFERENCES IN THE STATE OF THE HEAT TRANSFER SURFACE.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC: 621.317.39.001.43:53.093

KUDRYAVTSEV, A. V.

"Selection of a Procedure for Measuring Moisture Content With the PRV-63M Proton Resonance Hygrometer"

V sb. Fiz. metody ekspress-analiza sostava veshchestva (Physical Methods for Proximate Analysis of the Composition of a Substance--collection of works), Frunze, "Ilim", 1970, pp 32-38 (from Rzh-Metrologiya i Izmeritel'naya Tekhnika, No 11, Nov 70, Abstract No 11.32.1021)

Translation: Experimental data are taken as a basis for evaluating the procedure of measuring moisture content on a pilot model of the PRV-63M hygrometer. Four procedures are investigated, differing both in the method of sample preparation and in the process of measurement on the PRV-63M hygrometer: free pouring of the sample into the test tube with subsequent division of readings by the full-scale weight, free pouring with introduction of a correction for the full-scale weight by changing the amplification factor, and compacting and pulverizing the sample accompanied by measurement with a constant amplification factor. Data are given on graduation of the pilot model on samples of first-grade wheat. The mean square graduation error for the

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

KUDRYAVTSEV, A. V., Fiz. metody ekspress-analiza sostava veshchestva, 1970, pp 32-38

procedures studied is given as well as errors in reproducibility of measurement results for each method. The effect of sample contamination on the measurements is evaluated. One illustration, one table, bibliography of three titles. Resume.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 517.9:539.3

PARTON, V. Z., KUDRYAVTSEV, B. A.

"Contact Problem in the Mechanics of Deformation of Porous Visco-elastic Media"

Leningrad, V sb. Probl. mekhan. tverd. deformir. tela (Problems in the Mechanics of a Solid Deformable Body -- collection of works), "Sudostroyeniye," 1970, pp 329-339 (from RZh-Matematika, No 7, Jul 1970, Abstract No 7B471)

Translation: The authors consider the plane contact problem of the mechanics of deformation of a viscoelastic medium. In view of the known isomorphism of phenomena, the solution found for a die (or crack) is also the solution for the corresponding thermoelastic problem. Authors' abstract.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--USE OF A STEP BY STEP DYNAMIC EXPERIMENT FOR DETERMINING THE OPTIMUM CONDITIONS OF A CATALYTIC PROCESS -U-

AUTHOR-(05)-BLANDIN, YU.V., KALININA, E.V., KUDRYAVTSEV, B.M., MAYOROV, D.M., MOROZOV, G.A.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERARAB. NEFTEKHIM. (MOSCOW) 1970, (2), 32-4

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CATALYSIS, HYDROGENATION, FATTY ACID, CHEMICAL REACTOR, CHEMICAL PRODUCT PRODUCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0567 STEP NO--UR/0318/70/000/002/0032/0034

CIRC ACCESSION NO--AP0119485

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0119485

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE METHOD WAS APPLIED TO DIRECT HYDROGENATION OF FATTY ACIDS TO ALCS. USING FACTORIAL PLANNING BY MEANS OF A PILOT PLANT. THE MAX. PRODUCTIVITY, TAKEN AS OPTIMIZATION CRITERION, WAS OBTAINED AT 240DEGREES AT THE REACTOR BOTTOM INTAKE STOCK SPACE VELOCITY 0.3 ML-HR AND INTAKE STOCK H RATIO 1:700.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 012 UNCLASSIFIED PROCESSING DATE--[illegible]70

TITLE--USE OF A FACTOR PLANNING METHOD FOR THE STUDY AND OPTIMIZATION OF A CATALYTIC PROCESS -U-

AUTHOR-(05)-BLANDIN, YU.V., KALININA, E.V., KHORYAVTSEV, B.M., MUSHEGYAN, D.V., PLOTITSINA, L.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. TEKHNOL. TOPL. MASEL 1970, 15(3), 42-5

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HYDROGENATION, FATTY ACID, ALCOHOL, CHEMICAL PLANT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1437 STEP NO--UR/0065/70/015/003/0042/0045

CIRC ACCESSION NO--AP0112941

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 012 UNCLASSIFIED PROCESSING DATE--[illegible]

CIRC ACCESSION NO--AP0112481

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE METHOD WAS APPLIED TO THE DIRECT HYDROGENATION OF SYNTHETIC FATTY ACIDS TO ALCS., BY USING THE FEED SPACE VELOCITY, BOTTOM REACTOR TEMP., MOLE RATIO OF FEED TO H, AND CONTENT OF FATTY ACIDS ABOVE C SUB16 IN THE FRACTION AS VARIABLES. THE OPTIMIZATION CRITERION WAS THE HIGHER PRODUCTIVITY OF THE PLANT, WHICH WAS 0.175 HR PRIME NEGATIVE1, 246DEGREES, AND RATIO 1:50, RESP. THE PRODUCTIVITY WAS THUS INCREASED BY 35PERCENT OVER THAT OBTAINED UNDER CONDITIONS SUGGESTED BY THE ALL UNION SCIENTIFIC RESEARCH INSTITUTE FOR PETROCHEMISTRY (0.13 HR PRIME NEGATIVE1).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 542.91:547.1'118

YARMUKHAMETOVA, D. KH., SPERANSKAYA, Z. G., KUDRYAVTSEV, R. V., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov of the USSR Academy of Sciences

"10-(0,0-dialkylphosphonformy)-phenoxazines and phenothiazines"

Moscow, Izvestiya Akademii Nauk SSSR -- Seriya Khimicheskaya, No 11, 1972, pp 2624-2625

Abstract: A series of new 10-(0,0-dialkylphosphonformyl)-derivatives of phenoxazine and phenothiazine were synthesized. The reaction of the corresponding 10-(chloroformyl)-derivatives with dialkylphosphite proceeds by the Arbuzov regrouping scheme. In the infrared spectra of the compounds obtained there is 1,640 cm^{-1} band characteristic of the CO group and a 1,260 cm^{-1} band characteristic of the P=O group. The precipitated 10-(0,0-dialkylphosphonformyl)--phenoxazines and phenothiazines are white crystals soluble in organic solvents but insoluble in water. The toxicity of the compounds for warm blooded animals is low; LD_{50} is 1,000 mg/kg. The antihelminth activity of 10-(0,0--dialkylphosphonformyl)phenothiazines is lower than for the corresponding dialkylphosphonacetyl-derivatives. The antichloincesterase properties of

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

YARMUKHAMETOVA, D. KH., et al., Izvestiya Akademii Nauk SSSR - Seriya Khimicheskaya, No 11, 1972, pp 2624-2625

the formyl and acetyl-derivatives of phenothiazine are approximately the same and amount to I_{50} 10^{-4}-10^{-5} M. 10-(chloroformyl)phenoxazine and phenothiazine were obtained by the reaction of phenothiazine or phenoxazine with phosgene (M. Clalsen, et al., J. Organ. Chem., No 26, 4130, 1961).

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 632.95

YARMUKHAMETOVA, D. KH., KUDRYAVTSEV, B. V., Institute of Physical and Organic Chemistry imeni A. Ye. Arbuzov

"A Method of Making Phosphorylated Phenothiazines"

USSR Author's Certificate No 287017, filed 14 Jul 69, published 15 Mar 71 (from RZh-Khimiya, No 1(II), Jan 72, Abstract No 1N381)

Translation: 3-R-10-R'-phenothiazines [R = $NHC(Me_2)_2PH(O)OH$, R' = Me (Ia); R = $NHC(Me_2)PH(O)OH$, R' = Et (Ib); R = H, R' = $C(O)CH_2NHC(Me_2)PH(O)OH$ (Ic)] are made by the reaction of amino derivatives of phenothiazine with hypophosphorous acid (II) and a ketone in an organic solvent e.g. by adding 1 g of II diluted with alcohol (1:2) to 3.4 g of 3-amino-10-methyl-phenothiazone in 50 ml of alcohol, and heating 2.6 g of the resultant salt for 4 hours with 25 ml of dry acetone at the boiling point. It is produced in 75% yield mp 199-200°C (AcOH-water). Similar method of synthesis from 3-amino-10-ethylphenothiazine and 10-glycylphenothiazine gives Ib, mp 179-180°C, and Ic in 92% yield mp 165-167°C. Compounds I may find application as physiologically active agents. V. P. Kozyukov.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 632.95

YARMUKHAMETOVA, D. Kh., and KUDRYAVTSEV, B. V., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov

"A Method of Making Phosphorylated Phenothiazines"

USSR Author's Certificate No 257502, filed 18 Dec 67, published 28 May 70 (from RZh-Khimiya, No 3, 10 Feb 71, Abstract No 3N556 P)

Translation: A method is proposed for synthesizing physiologically active 2-R-10-R'-phenothiazines (I) [R = R' = H, Ac, dialkylphosphonoacetyl or (dialkylphosphonoxy)-vinyl]. Two grams of triethyl phosphite (II) (40% excess of theoretical) is added to molten 2-acetyl-10-bromoacetylphenothiazine (3 grams), at 150°C/100, the excess of II is distilled, and 2.7 grams of I is isolated [R = Ac, R' = diethylphosphonoacetyl (A)], $C_{20}H_{22}NO_5PS$, melting point 150-60°C. The following compounds (I) were also analogously synthesized (given are R, R', empirical formula, yield in percent, and melting point in °C): Ac, diisobutylphosphonoacetyl, $C_{24}H_{30}NO_5PS$ 81, 99-100; diethylphosphonoxy (B), Ac, $C_{20}H_{22}NO_5PS$, 78, —; V, H, $C_{18}H_{20}NO_4PS$, 32, 95-7; dibutylphosphonoxy (V), H, $C_{22}H_{28}NO_4PS$, 84 —; B, A, $C_{24}H_{31}NO_8P_2S$, 86, —; V, dibutylphosphonoacetyl, $C_{32}H_{47}NO_8P_2S$, 78, —;

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR UDC 542.91+661.718.1

YARMUKHAMETOVA, D. Kh., SPERANSKAYA, Z. G., KUDRYAVTSEV, B. V., and YERMAKOVA, Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov, USSR Academy of Sciences

"Monothio- and Dithiophosphonacetylphenothiazines and Phenoxazines"

Moscow, Izvestiya Akademii Nauk SSR, Seriya Khimicheskaya, No 4, 1971, pp 802-806

Abstract: Because of their marked biological properties, esters of monothio- and dithio- acids of phosphorus during the past few years have been the object of research, leading to the discovery of new compounds, among other results.

In the present study of the reactions of chloroacetylphenothiazine with salts of the monothiophosphoric acids, the following new compounds were discovered: 10-[(0,0-dialkylphosphonothio)acetyl]phenothiazines (alkyl: ethyl, propyl, 1-propyl, butyl, 1-butyl), 10-methyl(ethyl) -3- [(0,0-diethylthionophosphothio)acetylamino]phenothiazines, [(0,0-diethyldithio-phosphono)acetyl]phenothiazine, 10-(0,0-diethylphosphonothioacetyl) phenoxazine, 10-[(0,0-dialkyldithiophosphono)acetyl]phenoxazines (alkyl:

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

YARMUKHAMETOVA, D. Kh., et al., Izvestiya Akademii Nauk SSR, Seriya Khimicheskaya, No 4, 71, pp 802-806

ethyl, propyl, i-butyl), and 2, 10-bis-[O,O-diethyldithiophosphono)acetyl] phenothiazine.

Tests for larvacidal and antifungus properties have been started on these new compounds but have thus far showed no positive results.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 621.365.82

KUDRYaVTsEV, E. M.

"The Carbon Dioxide Gas Dynamic Laser"

Nauch. tr. In-t mekh. Mosk. Un-ta (Scientific Proceedings of the Institute of Mechanics, Moscow University), No 21, 1973, pp 107-118, RZh-Fizika, No 9, Sep 73, Abstract No 9D760

Translation: This is a survey article. The basic operating principles of the CO_2 gas dynamic laser are explained, as well as the method of calculating the inversion and amplification and the most characteristic designs of these lasers. There is a survey of experimental and theoretical work on the amplification factor and the oscillation power as functions of the composition of the CO_2-He-N_2-H_2O mixture, the initial temperatures and pressure, and geometric parameters of the apparatus. The good agreement between experimental and theoretical values is noted. Spectral characteristics of the radiation are described. Mention is made of the theoretically possible improvement in efficiency by using a closed cycle. Twenty-three bibliographic citations.

V. B. Khalfin

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC: 621.317.7.087.92-932

LYSENKO, A. P., KUDRYAVTSEV, V. B., RUMYANTSEV, B. I., KUDRYAVTSEV, P. I.

"A Method of Converting Alternating Harmonic and Square Voltages and Currents to Frequency"

USSR Author's Certificate No 252738, filed 26 Feb 68, published 11 Feb 70 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, Nov 70, Abstract No 11A168 P)

Translation: This Author's Certificate introduces a voltage-to-frequency converter which utilizes modulation of the spectral characteristics of masers. A peculiarity of optical masers (which are based on use of the phenomenon of optical double resonance in alkali metal vapors) is asymmetry of the resonance line, which makes it possible to convert and measure small and ultrasmall alternating voltages and currents with high precision. It is known that the frequency spectrum emitted by a spin system has a finite width. This is why quantum and nuclear devices such as quantum magnetometers with double optical resonance may have several distinct resonance frequencies, depending on the direction and magnitude of the vector of magnetic field intensity. To improve sensitivity and provide for preadjustment to the maximum spectral density of the resonance curve, it is proposed that a method be used which involves

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

LYSENKO, A. P. et al., USSR Author's Certificate No 252739

correcting the level of the constant component of the magnetic field in the quantum magnetometer zone or phase in the feedback circuit. In this regard, the level of the voltage to be converted may be considerably below the cutoff voltage of the best semiconductor rectifiers. One illustration. V. M.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

(2)

USSR

UDC 619:616.988.6-097:636.5

KOROVIN, R. N., KREYMER, Yu. Ye., MATYUSHKOV, V. S., LUKINA, V. A., NIKITIN, Ye. Ye., and KUDRYAVTSEV, F. S., All-Union Research Institute of Fowl Diseases

"The Effectiveness of Crude Viral Vaccine Against Marek's Disease"

Moscow, Veterinariya, No 8, 1973, pp 38-39

Abstract: A turkey herpesvirus antigenically related to the virus responsible for Marek's lymphoma was grown in chick embryo fibroblasts and utilized as a vaccine. The efficacy of the vaccine was tested on 1 day old chicks immunized intramuscularly with 500 PFU in 0.2 ml during an epizootic outbreak in Latvia. Mortality due to Marek's disease was 3.2-4.5 times less among the immunized chicks than among the unimmunized controls. Although 100% protection was not afforded the immunized chicks, the economic gains from an effective vaccine are obvious and indicate the importance of prophylactic immunization.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 621.515:628.517.2

KUDRYAVTSEV, F. S., Engineer, LAGUNOV, L. F., Candidate of Technical Sciences, SOLOV'YEV, R. V., Engineer, and KOZLOVA, N. G., Engineer

"Exhaust-Noise Muffler for a Compressor Station"

Moscow, Vestnik Mashinostroyeniya, No 7, June 1972, pp 31-32

Abstract: The compressor station of the Gor'kiy Motor Vehicle Plant has three turbine compressors, each with a capacity of 500 m^3/min and one with a capacity of 250 m^3/min; the air exhaust ducts leading out of the compressor station building are directed toward the office building of the plant management, situated in the immediate vicinity. The frequency spectrum of the exhaust noise of a 500 m^3/min compressor, measured at a distance of 2 m from the wall of this office building, was above the permissible maximum; it was necessary to reduce the noise level at 1,000, 2,000, 4,000, and 8,000 Hz by 57, 59, 60, and 57 db, respectively. A muffler of simple design was constructed, the exhaust air being passed through layers of rubble and crushed stone. The muffler was designed for suppression of the noise created by a single compressor, since the air was exhausted by each compressor in turn. The calculations involved in designing the muffler are presented, and the

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USSR

KUDRYAVTSEV, F. S., et al., Vestnik Mashinostroyeniya, No 7, June 1972, pp 31-32

muffler is described. It was impossible to conduct tests on the efficiency of the muffler near the office building, i.e., at the point for which all the calculations had been made, due to noise created by the air intake ducts, for which the appropriate mufflers had yet been installed. However, results of measurements conducted near the muffler, and calculations based on these measurements, show that this exhaust-noise muffler provides the required noise reduction over the entire frequency range. 3 figures, 2 references.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 628.517.4:534.733.09

KUDRYAVTSEV, F. S., and LAGUNOV, L. F., Candidate of Technical Sciences

"Chambers for Measuring the Noise of Machines"

Moscow, Mashinostroitel', No 6, Jun 72, pp 22-23

Abstract: The All-Union Central Trade Union Council in the All-Union Scientific Research Institute of Work Safety has developed a technological project of typical phonometric chambers for measuring the noise of machines and equipment. The open field method with the use of soundproofed chambers gives most exact results and permits the measurement of a whole complex of sound characteristics including directivity. The main parameters and characteristics of four typical soundproofed chambers are described by reference to tabulated data and the design of a chamber with reflecting floor. In cases where the directional noise emission characteristics need not be determined and where it is sufficient to measure in a frequency range of 126 Hz and higher, the machines can be investigated in reverberation chambers. The main parameters and characteristics of four typical reverberation chambers and their construction are shown. In comparison with soundproofed chambers, the reverberation chambers are of much simpler design, their dimensions are smaller, and the cost of their construction is several times lower. Two illustrations, two tables.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 621.317.799:621.372(088.8)

KUDRYAVTSEV, G. I., MOROZOV, A. A.

"Device for Measuring Spatial Harmonic Amplitudes"

USSR Author's Certificate No 272403, Filed 25 Mar 68, Published, 22 Sep 70 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4A274P)

Translation: A device is proposed for measuring the spatial harmonic amplitudes in decelerating structures closed in a ring comprising a superhigh frequency oscillator connected with the decelerating structure and displaceable along the decelerating structure of the receiving probe and a superhigh frequency detector with a display. The device is distinguished by the fact that in order to simplify the measurements, the superhigh frequency detector input is connected to the receiving probe and the output of the superhigh frequency oscillator. A spectral analyzer is used as the display, and the receiving probe is made to move continuously around a circle along the decelerating structure.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 051 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--MECHANICAL AND THERMOMECHANICAL PROPERTIES OF POLYIMIDE FIBERS -U-

AUTHOR-(05)-OPRITS, Z.G., KUDRYAVTSEV, G.I., KORZHAVIN, L.N., GINZBURG, B.M., FRENKEL, S.YA.
COUNTRY OF INFO--USSR

SOURCE--KHIM. VOLOKNA 1970, (3), 61-4

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--SYNTHETIC FIBER, POLYIMIDE RESIN, PLASTIC MECHANICAL PROPERTY, PYROMELLITIC ACID, ORGANIC SULFUR COMPOUND, ETHER, TENSILE STRENGTH, ELECTRON BOMBARDMENT, UV RADIATION, NYLON, POLYESTER RESIN, CRYSTALLINE POLYMER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605012/E03 STEP NO--UR/0183/70/000/003/0061/0064

CIRC ACCESSION NO--AP0140306

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 051 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0140306

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EXPTL. FIBERS WERE PREPD. BY THE POLYCONDENSATION OF PYROMELLITIC DIANHYDRIDE WITH (P,H SUB2 NC SUB6 H SUB4) SUB2 O, (P,H SUB2 NC SUB6 H SUB4) SUB2 S, OR P,C SUB6 H SUB4 (OC SUB6 H SUB4 NH SUB2 P) SUB2 AND SPINNING THE RESULTING POLY(IMIDE ETHERS) OR THIOETHERS. THE FIBERS RETAINED THEIR INITIAL TENSILE STRENGTH AT BREAK (SIGMA) AFTER HEATING IN THE AIR AT 200DEGREES FOR 216 HR, AND LOST SIMILAR TO 30PERCENT SIGMA UNDER THE SAME CONDITIONS BUT AT 300DEGREES. THE FIBERS RESISTED BOILING IN 10PERCENT H SUB2 SO SUB4 AND HCL SOLNS. FOR GREATER THAN OR EQUAL TO 100 HR. THE ALK. SOLNS. AND CONCD. ACIDS DEGRADED THEM. THE FIBERS RESISTED THE BOMBARDMENT WITH FAST ELECTRONS OR UV IRRADN. BETTER THAN NYLON 6 OR POLYESTERS. X RAY DIFFRACTION SHOWED THAT THE FIBERS WERE CRYST.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 026 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--COPOLYMERIZATION OF LACTAMS OF HEXAHYDRO,P,AND M,AMINOBENZOIC ACIDS -U-

AUTHOR-(04)-VOLOKHINA, A.V., KHARITONOVA, A.S., RYZHENKO, L.M., KUDRYAVTSEV, G.I.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN. SER. B 1970, 12(3), 225-7

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--COPOLYMERIZATION, AMINE, BENZOIC ACID, CAPROLACTAM, INTRINSIC VISCOSITY, SYNTHETIC FIBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1676 STEP NO--UR/0460/70/012/003/0225/0227

CIRC ACCESSION NO--AP0125297

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 026 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125297

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE LACTAMS WERE POLYMD. AND COPOLYMD. IN VARIOUS PROPORTIONS IN THE PRESENCE OF 1 MOLE PERCENT METALLIC K AND 0.25 MOLE PERCENT N-ACETYL-EPSILON-CAPROLACTAM AT 200DEGREES TO GIVE THE STABLE TITLE POLYMERS (I) (SMALLER THAN OR EQUAL TO 400DEGREES). THE DEGREE OF CONVERSION AND THE INTRINSIC VISCOSITY WERE INVERSELY PROPORTIONAL TO THE REACTION TEMP., BUT WERE ESSENTIALLY INDEPENDENT OF MONOMER RATIOS. TENSILE FIBERS WERE OBTAINED FROM I DISSOLVED IN CONCD. H SUB2 SO SUB4. THE EFFECTS OF CHEM. STRUCTURE OF I ON THEIR SOFTENING POINTS ARE DISCUSSED. FACILITY: VSES. NAUCH.-ISSLED. IN T. ISKUSSTV. VOLOKNA, MYTISHCHI, USSR.

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SOV/112-59-4-7507

8(0)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 150 (USSR)

AUTHOR: Kudryavtsev, G. I.

TITLE: High-Speed Magnetic Amplifier

PERIODICAL: Tr. Mosk. energ. in-ta, 1958, Nr 27, pp 243-258

ABSTRACT: Functioning and methods of approximate calculation of a push-pull high-speed magnetic amplifier designed according to the so-called "Lafsi" scheme are analyzed; the amplifier is loaded with a resistance and is controlled by synchronous alternating and rectified half-wave voltages. Data, experimental and calculated input-output characteristics of a magnetic amplifier laboratory model are presented. Five illustrations. Bibliography: 6 items.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

1/2 010 UNCLASSIFIED PROCESSING DATE--27NOV70

TITLE--POLYAMIDE INDOLE -U-

AUTHOR-(04)-KUDRYAVTSEV, G.I., ODNORALOVA, V.N., NAZIMOVA, N., SHABLYGIN, M.V.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(5), 371-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CONDENSATION REACTION, AMIDE, INDOLE DERIVATIVE, TOLUENE, CHLORINATED ORGANIC COMPOUND, AROMATIC AMINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1233 STEP NO--UR/0460/70/012/005/0371/0373

CIRC ACCESSION NO--AP0134907

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UNCLASSIFIED PROCESSING DATE--27NOV70

2/2 010

CIRC ACCESSION NO--AP0134907

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POLYCONDENSATION OF ISOPHTHALOYL DICHLORIDE WITH 2,4,DIAMINOTOLUENE GAVE I, WHICH WAS CYCLIZED TO II BY SWELLING I FILMS IN ETONA OR AC SUB2 O AND HEATING THEM TO 340DEGREES IN VACUO. I AND II LOSE LESS THAN OR EQUAL TO 5 WT. PERCENT DURING HEATING IN AIR AT LESS THAN OR EQUAL TO 400DEGREES. THE WT. LOSS OF II REACHED 15PERCENT AT 460DEGREES. I IS NOT SOL. IN AMIDES OR CONCD. H SUB2 SO SUB4. FACILITY: VSES. NAUCH.-ISSLED. INST. ISKUSSTV. VOLOKNA, MYTISHCHI, USSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

UNCLASSIFIED PROCESSING DATE--13NOV70

1/2 020

TITLE--THIOAMIDATION OF POLYACRYLONITRILE -U-

AUTHOR-(04)-LEVITES, L.M., GABRIYELYAN, G.A., KUORYAVTSEV, G.I., ROGOVIN, Z.A.

COUNTRY OF INFO--USSR

SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(4), 309-13

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ACRYLONITRILE, CHEMICAL REACTION RATE, COPOLYMERIZATION, THIOL, AMIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1241

STEP NO--UR/0460/70/012/004/0309/0313

CIRC ACCESSION NO--AP0134915

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

2/2 020 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0134915

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REACTIONS OF POLYACRYLONITRILE WITH H SUB2 S IN HCONME SUB2 OR IN ME SUB2 SO IN THE PRESENCE OF NH SUB4 SH, ME SUB2 NH, ET SUB3 N, (HOCH SUB2 CH SUB2) SUB3 N, OR PYRIDINE SHOWED THAT THE THIOAMIDATION RATE AND MAX. DEGREE OF CONVERSION OF CN GROUPS DEPENDED ON THE AMINE BASICITY AND TEMP. THE THIOAMIDATION RATE AND DEGREE OF CONVERSION WERE HIGHER IN ME SUB2 SO THAN IN HCONME SUB2. THE REACTION GAVE ACRYLONITRILE THIOACRYLAMIDE COPOLYMERS CONTG. 50-5PERCENT CSNH SUB2 GROUPS. FACILITY: MOSK. TEKST. INST., MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

UDC 639.954

MASHTAKOV, S. M., (DECEASED), DEYEVA, V. P., VOLYNETS, A. P., PROKHORCHIK, R. A., SHCHERBAKOV, V. A., and KUDRYAVTSEV, G. P., Fiziologicheskoye Deystviye Nekotorykh Gerbitsidov na Rasteniya (The Physiological Effect of Certain Herbicides on Plants), Minsk, "Nauka i Tekhnika," 1971, 252 pp

Translation: Annotation: The book presents results from research on the effect of certain herbicides, gibberallic acid, and chlorchlorinecholide (?) on the biochemical activity of mitochondria and chloroplasts and the exchange of phenol compounds of plants. The physiological activity of a number of free and linked polyphenols is described. The relationship between the effect of herbicides on plants and the content of native phenol compounds and the level of energy potential of the plants being tested is discussed.

The book is intended for scientific associates, graduate students, teachers, and students at universities and agricultural and pedagogical higher educational institutions.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

MASHKAROV, S. M. (DECEASED), et al., Fiziologicheskoye Deystviye Nekotorykh Gerbitsidov na Rasteniya, Minsk, "Nauka i Tekhnika," 1971, 252 pp

Change in the Activity of the Enzymes of Lupine Mitochondria Under the Effects of the Herbicides 2,4-D, Sodium Trichloroacetate, and Dalapon 12

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

MASHTAKOV, S. M., (DECEASED), et al., Fiziologicheskoye Deystviye Nekotorykh Gerbitsidov na Rasteniya, Minsk, "Nauka i "Tekhnika," 1971, 252 pp

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

KASHTANOV, S. N., (DECEASED), et al., Fiziologicheskiye Deystviya Kakoterpi... Gerbitsidov na Rasteniya, Minsk i Tekhnika," 1971, 252 pp

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7

USSR

KASHTAKOV, S. M., (DECEASED), et al., Fiziologicheskiye Deystviye Nekotorykh Gerbitsidov na Rasteniya, Minsk i Tekhnika," 1971, 252 pp

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201620010-7"